

In The Claims:

Please amend claim 14 as follows:

14. (AMENDED) The compliant foil fluid film radial bearing of claim [13] 56 wherein said generally T-shaped retainers are symmetrical.

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Please amend claim 15 as follows:

15. (AMENDED) The compliant foil fluid film radial bearing of claim [14] 16 wherein said generally T-shaped asymmetrical retainers have a crosspiece with a leading edge and a trailing edge, with the leading edge thicker than the trailing edge.

Please amend claim 16 as follows:

16. (AMENDED) The compliant foil fluid film radial bearing of claim [13] 56 wherein said generally T-shaped retainers are [symmetrical] asymmetrical.

Please amend claim 17 as follows:

17. (AMENDED) The compliant foil fluid film radial bearing of claim [13] 56 wherein said generally T-shaped retainers include radial openings to provide cooling flow to said interior bore of said bushing.

Please add claims 19-56 as follows:

19. (NEW) A compliant foil fluid film radial bearing comprising:

a bushing having an interior bore including a plurality of generally T-shaped retainers

axially extending in said interior bore;

a plurality of compliant foils, with an individual compliant foil disposed in said interior bore of said bushing between adjacent generally T-shaped retainers; and

a plurality of foil undersprings, with an underspring disposed beneath each of said compliant foils between adjacent generally T-shaped retainers.

20. (NEW) The compliant foil fluid film radial bearing of claim 19 wherein said interior bore is cylindrical and said individual compliant foils and said individual foil undersprings beneath said individual compliant foils establish a converging wedge between adjacent generally T-shaped retainers.

21. (NEW) The compliant foil fluid film radial bearing of claim 19 wherein said interior bore is non-cylindrical, generally contoured lobes are formed between adjacent generally T-shaped retainers, and said individual compliant foils and said individual foil undersprings generally conform to the shape of said contoured lobes to establish a converging wedge.

22. (NEW) The compliant foil fluid film radial bearing of claim 19 wherein said bearing is hydrodynamic.

23. (NEW) The compliant foil fluid film radial bearing of claim 19 wherein said bearing is hydrostatic.

24. (NEW) The compliant foil fluid film radial bearing of claim 19 wherein said generally T-shaped retainers include radial openings to provide cooling flow to said interior bore of said bushing.

25. (NEW) The compliant foil fluid film radial bearing of claim 19 further comprising: means to provide cooling flow axially into said interior bore of said bushing.

26 (NEW) A compliant foil fluid film radial bearing comprising:
a bushing having a cylindrical interior bore including a plurality of retainers axially extending into said interior bore;

a plurality of compliant foils, with an individual compliant foil disposed in said interior bore of said bushing between adjacent retainers; and

a plurality of foil undersprings, with an underspring disposed beneath each of said compliant foils between adjacent retainers, the radial height of said foil undersprings increasing from its leading edge to its trailing edge to establish a converging wedge of said compliant foil.

27. (NEW) The compliant foil fluid film radial bearing of claim 26 wherein said retainers are generally T-shaped.

28. (NEW) The compliant foil fluid film radial bearing of claim 27 wherein said generally T-shaped retainers are symmetrical.

29. (NEW) The compliant foil fluid film radial bearing of claim 27 wherein said generally T-shaped retainers are asymmetrical.

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30. (NEW) The compliant foil fluid film radial bearing of claim 29 wherein said generally T-shaped asymmetrical retainers have a crosspiece with a leading edge and a trailing edge, with the leading edge thicker than the trailing edge.

31. (NEW) The compliant foil fluid film radial bearing of claim 26 wherein the radial stiffness of said foil undersprings increases from its leading edge to its trailing edge.

32. (NEW) The compliant foil fluid film radial bearing of claim 31 wherein said bearing is hydrodynamic.

33. (NEW) The compliant foil fluid film radial bearing of claim 31 wherein said bearing is hydrostatic.

34. (NEW) The compliant foil fluid film radial bearing of claim 27 wherein said generally T-shaped retainers include radial openings to provide cooling flow to said interior bore of said bushing.

35. (NEW) The compliant foil fluid film radial bearing of claim 26 further comprising:
means to provide cooling flow axially into said interior bore of said bushing.
36. (NEW) A compliant foil fluid radial bearing comprising:
a bushing having a non-cylindrical interior bore including a plurality of retainers
axially extending into said interior bore;
a plurality of compliant foils, with an individual compliant foil disposed in said
interior bore of said bushing between adjacent retainers; and
a plurality of foil undersprings, with an underspring disposed beneath each of said
compliant foils between adjacent retainers, the contour of the interior bore between adjacent
retainers establishing a converging wedge on the surface of said compliant foil.
37. (NEW) The compliant foil fluid radial bearing of claim 36 wherein said retainers are
generally T-shaped.
38. (NEW) The compliant foil fluid film radial bearing of claim 37 wherein said
generally T-shaped retainers are asymmetrical.
39. (NEW) The compliant foil fluid film radial bearing of claim 38 wherein said
generally T-shaped asymmetrical retainers have a crosspiece with a leading edge and a
trailing edge, with the leading edge thicker than the trailing edge.

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40. (NEW) The compliant foil fluid film radial bearing of claim 37 wherein said generally T-shaped retainers are symmetrical.

41. (NEW) The compliant foil fluid film radial bearing of claim 37 wherein said bearing is hydrodynamic.

42. (NEW) The compliant foil fluid film radial bearing of claim 37 wherein said bearing is hydrostatic.

43. (NEW) The compliant foil fluid film radial bearing of claim 37 wherein said generally T-shaped retainers include radial openings to provide cooling flow to said interior bore of said bushing.

44. (NEW) The compliant foil fluid film radial bearing of claim 36 further comprising: means to provide cooling flow axially into said interior bore of said bushing.

45. (NEW) A radial bearing bushing comprising:
a bushing having an interior bore;
one or more retainer bases axially extending into the interior bore;
one or more leading edges attached to each of the one or more retainer bases for retaining a compliant foil; and
one or more trailing edges attached to each of the one or more retainer bases for retaining a compliant foil.

46. (NEW) The radial bearing of claim 45 wherein one or more of the one or more retainer bases include radial openings to provide cooling flow to said interior bore of said bushing.

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cont 47. (NEW) The radial bearing of claim 45 wherein the interior bore is cylindrical.

48. (NEW) The radial bearing of claim 45 wherein the interior bore is non-cylindrical.

49. (NEW) A compliant foil radial bearing comprising:

a bushing having an interior bore including one or more retainer bases axially extending into the interior bore;

one or more compliant foils;

one or more leading edges attached to each of the one or more retainer bases for retaining a compliant foil trailing edge;

one or more trailing edges attached to each of the one or more retainer bases for retaining a compliant foil leading edge; and

one or more foil undersprings, each underspring disposed beneath a compliant foil.

50. (NEW) The compliant foil radial bearing of claim 49 wherein the interior bore is cylindrical and an individual compliant foil and underspring beneath the individual compliant foil form a converging wedge.

51. (NEW) The compliant foil radial bearing of claim 49 wherein the interior bore in non-cylindrical, generally contoured lobes are formed between adjacent retainer bases, and an individual compliant foil and underspring beneath the individual compliant foil generally conform to the shape of a contoured lobe to establish a converging wedge.

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52. (NEW) The compliant foil radial bearing of claim 49 wherein said bearing is hydrodynamic.

53. (NEW) The compliant foil radial bearing of claim 49 wherein said bearing is hydrostatic.

54. (NEW) The compliant foil radial bearing of claim 49 wherein the one or more retainer bases include radial openings to provide cooling flow to the interior bore of said bushing.

55. (NEW) The compliant foil radial bearing of claim 49 further comprising:
means to provide cooling flow axially into the interior bore of the bushing.

56. (NEW) The compliant foil fluid film radial bearing of claim 13 wherein said retainers are generally T-shaped retainers.
